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CACAO

IN TRINIDAD AND TOBAGO

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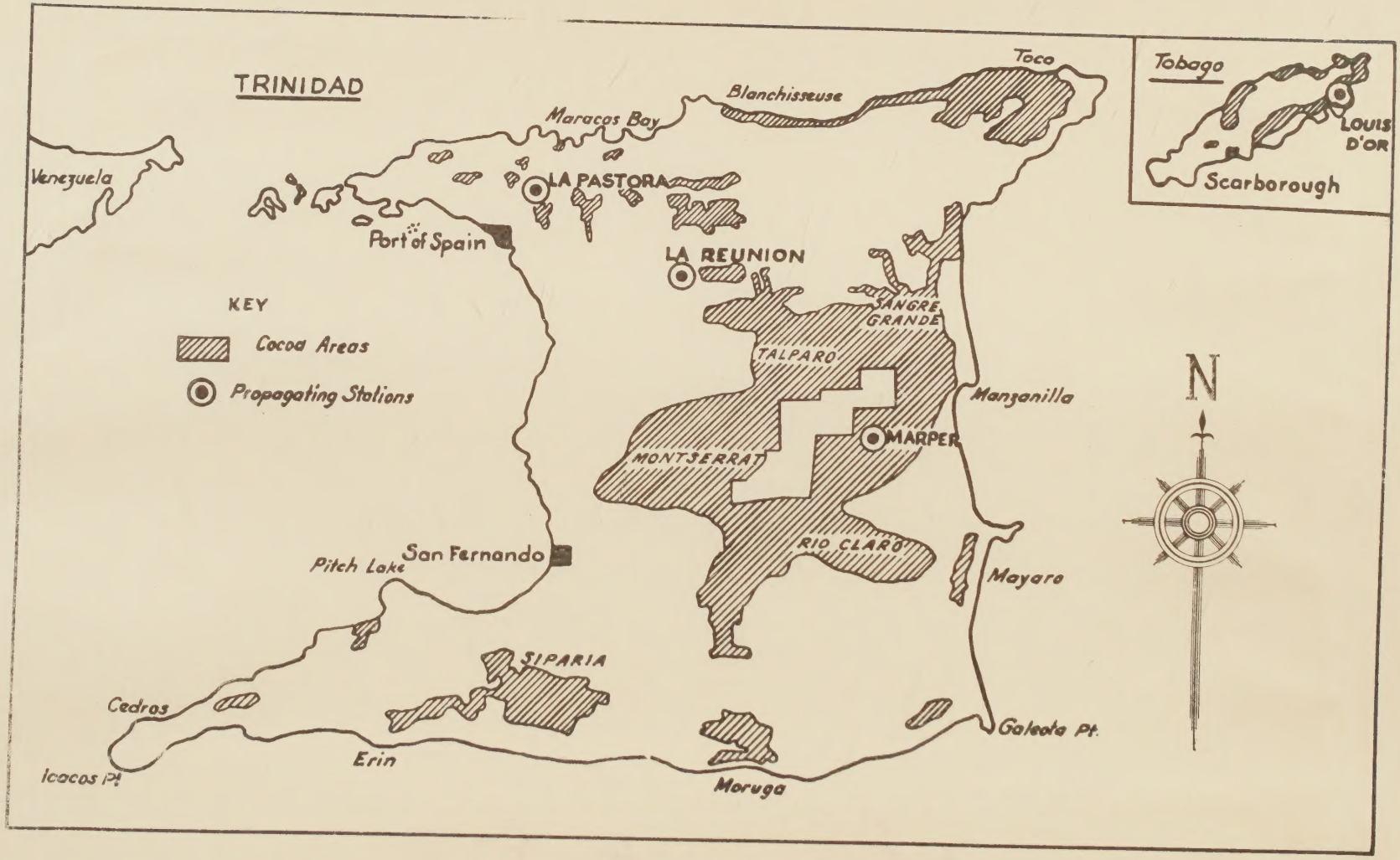
TRINIDAD
Toco
Blanchisseuse
Maracas Bay
Venezuela
LA PASTORA
Port of Spain
LA REUNION
SANGRE GRANDE
TALPARO
Manzanilla
MARPER
MONTSERRAT
RIO CLARO
Mayaro
Pitch Lake
San Fernando
SIPARIA
Cedros
Icacos Pt
Erin
Moruga
Galeota Pt.
KEY
Cocoa Areas
Propagating Stations
Tobago
LOUIS D'OR
Scarborough
N

FIGURE I

COCOA IN TRINIDAD

Introduction.

Trinidad and Tobago are the most southerly of the West Indian Islands. The flora, fauna and geological structure of Trinidad are similar to those of the Orinoco region of Venezuela, which lies only a few miles distant. The climate is warm and humid; the wet season extends from June to December, usually with a short dry period in September/October, and the dry season from January to May. Average rainfall is approximately 96 inches per annum in Trinidad and 90 inches per annum in Tobago. Normal temperature (SHADE) variation is 60°F. minimum and 95°F. maximum.

Cocoa is in cultivation either as a pure stand or interplanted with other crops (mainly coffee) on some 150,000 acres of land in the territory; in the past the acreage was considerably greater, the peak being near 250,000 acres in the late 1920s. Figure I shows the approximate cocoa areas. The main plantings lie on undulating land in the Central Range, extending eastwards to the Vegas of the Eastern Counties. Plantings in the Northern Range follow the valleys and lower slopes of the hills; there is little cultivation above 1,000 ft. altitude. In Tobago the main cocoa district is the north-eastern portion. Soil conditions vary greatly, the most fertile being the calcareous soils of the Central Range, the volcanic soils of Tobago and part of the north coast of Trinidad. The alluvial soils of the Northern Range are of medium fertility. The balance of the cocoa area is on silty and clayey sedimentary soils, typified by poor drainage and relative low fertility.

Cocoa is a way of life for a large group of persons in the territory. The last survey of cocoa properties was made by the Department of Agriculture in 1930 - this showed that there were some 16,637 cocoa properties, of which small farmers formed the majority. Details are given below:-

Area Class in Acres

	0-10	11-50	51-100	101-200	201-500	501-1000	1000+	Total
No. of Properties	10,038	5,009	456	837	221	65	11	16,637
Total Acreage of properties	62,744	99,229	32,162	41,822	71,045	48,629	23,437	379,068
Cocoa Acreage	36,270	58,575	19,140	25,174	39,965	22,364	7,466	208,954

Today, whilst the acreage has declined, the numbers of properties remain very similar. There are few large estates, the majority of land in cocoa being farmed by small producers.

Historical Background.

The cultivation of cocoa as an export crop in Trinidad commenced in the middle of the Seventeenth Century. These early plantings were short lived, as in 1727 they were destroyed by what is described as a "blast" (Fungus disease or Hurricane). It was not until 1756 that new plantings commenced with material imported from Venezuela. However, development was slow, the main industry of the island being sugar cane. Following figures show the increase in production:

Trinidad Cocoa Exports in pounds of dry cocoa

1796	-	96,000 lbs.
1803	-	361,000 lbs.
1821	-	1,214,000 lbs.

By 1865 annual production had risen to six million pounds; the subsequent rapid rise in exports was due to a slump in the sugar industry. French and Spanish sugar planters sold up their sugar estates and embarked upon cacao planting. The increase in cocoa production is shown in Appendix I. At the same time there was an increase in world demand for cocoa products (better techniques in processing considerably lowering the cost), which resulted in a long period of adequate prices (continued until 1920). With this incentive, there followed a period of continued expansion, the acreage under cacao rising annually. New plantings by estates were mainly by the "contract" system; in this, a planter contracted an area of land to a peasant (generally 3½ acres or 1,000 pickets), who planted and maintained it until the cocoa was in bearing; the planter on taking over the contract paid a lump sum. In general, money was raised for this expansion of estates by mortgage. With the continued prosperity cocoa mortgages became regarded as "gilt edged" and there was little attempt to repay the principle sum.

With the abolition of slavery (1807), Government made available Crown Lands at low cost, also many freed slaves gained possession of land by means of Squatters rights. Thus there developed a large class of small holders (with less than 50 acres) cultivating cocoa.

The expansion continued and spread onto lands not suited to cocoa cultivation. There was no attempt at the replanting of the older cocoa fields, growers being content to supply all missing trees; this in many cases developed into an annual supplying of supplies.

The fall of cocoa prices in 1921 was accentuated in Trinidad by certain local practices, namely:-

(a) There had been no replanting; yields on the older fields were in general declining.

(b) Younger cultivations were no longer economic as in general they were on marginal lands.

(c) There was no financial reserve to meet a period of crisis either in the peasant group or with owners of larger estates, who, in general, were mortgaged to the hilt and paying high rates of interest.

(d) The cost of production, mainly through higher labour rates, was considerably higher than in other cocoa-producing countries.

Planters combatted lower prices by reduction of costs, mainly by the curtailment of cultural practices, such as weeding, pruning, draining and supplying. As the depression advanced, uneconomic fields were abandoned; in many cases this resulted in complete properties being neglected and allowed to revert to forest.

The ravages of Witches' Broom disease (Marasmius perniciosus), first reported in 1928, further accentuated the decline. By 1932 the disease was present on some 126,000 acres of cocoa in Trinidad (total cocoa acreage 208,000). The decreases in yield, resultant from this disease, made more areas uneconomic and further abandonment followed.

This depressing picture was further accentuated during the years of World War II when the supply of labour became short. There was further abandonment of cultivation and by 1946 production had fallen to less than 10 million pounds per annum.

Government Assistance to the Cocoa Industry.

From early in the depression it was realised by Government that some form of assistance was necessary if the cocoa industry was to survive. The following is a summary of Government's aid to the Cocoa Industry:-

(a) The provision of short term credit (Agricultural Relief Ordinance 1921-1925) monies were provided as loans, mainly to provide planters with a respite from mortgages.

(b) The provision of long term credit on assumption of first mortgage (Agricultural Bank 1920). Credit obtained was repayable in 59 half-yearly instalments. Money thus provided was used by planters to pay off private mortgages; little was utilised for the improvement and maintenance of estates. In the period 1925-1932 some one and a quarter million dollars were advanced.

(c) Provision of crop advances (Cocoa Relief Ordinance 1930 to 1932), loans did not exceed the estimated value of the prospective cocoa crop. This scheme was taken over by the Agricultural Bank in 1932.

These schemes did not encompass the main problem of the industry, uneconomic returns primarily because of declining yields and disease losses. The provision of further credit in effect only put off the day of reckoning. Government assistance was increased by the provision of outright grants of money. This was known as the Cocoa Subsidy Scheme (1935 ----). Free grants were given to cacao proprietors to assist in the rehabilitation of cacao areas which appeared to have sound potentialities. Secondly, the Scheme was to assist in the planting of alternative crops in areas not suited to continued cacao cultivation, either interplanted in the cacao or as a pure cultivation. These grants were only given to estates with approved programmes and not for general estate work. Abandoned properties received no assistance. This scheme was financed by special taxation, and monies were paid out from 1936 to 1938. In this period less than one-fifth was utilised for replanting cocoa. Some 275,000 plants from high quality seedlings were issued by the Department of Agriculture; however, these were mainly utilised for supplying old fields, there being little or no attempt at replanting.

By 1938 Government and the industry realised that the only hope of salvation lay in the realm of concerting efforts in replanting with higher yielding selections on good land and switching to other crops

and mixed farming on areas that were unsuited to continued cocoa cultivation. High-yielding selections were available in the form of local selections (ICS clones) and material selected from the Upper Amazon. Unfortunately, the commencement of this revised scheme was delayed through the war years whilst propagating facilities were constructed and plant material was bulked up. Commercial scale deliveries of clonal plants to cocoa growers commenced in 1945. The scheme of planting alternative crops on lands unsuited to cocoa was in operation for the period 1947-1957.

Achievements of Cocoa Rehabilitation.

The replanting and rehabilitation of the Trinidad and Tobago Cocoa Industry commenced in 1945 with 66 growers participating. In the early years most growers were unwilling to participate, there was lack of knowledge of the suitability of the clonal material being supplied, growers fearing that the clones would be short-lived. Further, there were no financial resources available for vigorous replanting (price of cocoa not high enough to restore confidence in cocoa). By 1950 the continued high bearing of the oldest clones (planted in 1934 at the San Juan Estate) and the impressive and early bearing of plantings under the Subsidy Scheme dispelled doubts about the merits of clonal cuttings. Prices were more encouraging, rising to a peak of 90¢ (BWI.) per pound in 1954. The increasing confidence in the Subsidy Scheme was marked by a steady rise in participation in the Scheme. At the end of 1959 there were 7,802 participants. The size distribution and property acreages of these participants (at the end of 1959) is shown below.

Area Class (acres)

	0-5	6-10	11-20	21-50	51-100	101-200	201+	Total
No. of Properties	1,961	2,742	1,573	893	272	160	201	7,80
Total Acreage	6,756	19,397	25,568	28,778	20,705	23,110	113,746	238,06
Cocoa Acreage	4,828	13,681	17,529	20,494	13,150	13,832	47,584	131,10

This increase resulted in greater demands for plant material; new propagating facilities were constructed (1953-1956). The distribution of plants and resulting acreage planted is shown below:

Year	No. of Plants issued	Approx. Acreage Planted	
		Complete Replanting	Partial Replanting
1945	86,984	175	
1946	61,207	206	
1947	106,396	212	
1948	97,712	194	
1949	118,270	236	
1950	214,543	419	
1951	310,336	905	100
1952	300,095	642	950
1953	400,709	488	1,457
1954	484,094	605	1,852
1955	654,219	718	3,099
1956	1,040,693	1,481	3,670
1957	1,186,354	1,653	3,866
1958	1,282,181	1,933	4,009
1959	1,435,995	1,790	1,850
Total	7,779,788	11,657	20,853

In addition, subsidy has been paid for the establishment of alternative crops on lands considered unsuited to continued cocoa cultivation. This programme is shown below:-

Approximate Acreages planted in Other Crops

Year	Citrus	Coffee	Coconuts	Other Fruit	Pasture & Fodder
	Acres	Acres	Acres	Acres	Acres
1947	137	-	-	-	5
1948	135	-	2	2	41
1949	281	19	30	15	52
1950	276	66	34	14	32
1951	127	136	30	5	33
1952	165	232	30	-	31
1953	137	273	6	4	6
1954	132	297	4	-	9
1955	60	516	-	11	5
1956	19	204	-	18	1
1957	62	184	-	13	3
Total	1531	1927	136	82	218

It is estimated that 10% of the territory's annual cocoa crop is as a result of yields from the replanting programme. This percentage will accelerate in the near future as the larger plantings come into bearing. The rise in crop estimated for 1959/60 has not been achieved because of abnormally dry conditions prevailing since 1957. In addition it is estimated that plantings of citrus account for 80,000 crates per year and plantings of coffee for some 500,000 pounds per year.

Cultivation.

During the years of depression planters were forced to curtail cultural operations, such as drainage, pruning and regular cutlassing. Much of the cultivation on marginal lands was completely abandoned, reverting to lastrajo. The system of maintaining fields with their complete quota of trees by supplying was also curtailed; in many cases other crops were interplanted and on much of the acreage Robusta Coffee was widely utilised. It is of interest to note that on much of the poorer land a mixed cultivation of Robusta Coffee and Cocoa is now considered more economic than a pure stand of either crop. Since the war, with increasing confidence through higher prices, most of the abandoned acreage has been brought back to some form of cultivation. Generally, this has been restricted to cutlassing and reaping, although many of the old seedling trees have responded well to pruning and general clearing of wild trees, etc. in the cultivation. Growers have now realised that the future of the old seedlings is restricted and yields are declining. This has resulted in a rise in participation in the Subsidy Scheme and a desire to rehabilitate or replant their cocoa as quickly as practical.

Shade versus no shade has been a major controversy in Trinidad; early plantings after the war were made on a basis of no shade with close planting. These plantings failed, yields were poor after the initial early bearing phase was passed. Most of these areas have since been thinned out and shade planted. Government now insists that plantings under the Subsidy Scheme be with overhead shade. The Trinidad climate fluctuates greatly; the last three years have been excessively dry and during such periods cocoa without shade is doomed. On the flats and poorly drained land Erythrina glauca (Bocare or Water Immortelle) is utilised; on the hills and better drained land Erythrina poeppigiana (Anauca or Mountain Immortelle) is utilised. Gliricidia maculata is also grown, particularly in Tobago and in areas where the Erythrinas have failed. In the Central Range Montserrat area, a problem known locally as "Witches' Broom" (causitive agent not known) has ravaged the Anauca Immortelle. The quest for alternative shade trees has not been successful.

Traditionally, the planting of new areas was carried out in 'gardens' planted with Tannia, Cassava and Bananas to form temporary shade; this method has been adopted in the "Clear Planting" method of the Cocoa Subsidy Scheme. This temporary shade is planted 3-6 months before the rainy season in which planting is to be effected. The general spacing adopted is twelve feet square (302 trees per acre), ground shade being progressively removed so that ideally at onset of bearing (circa 5 years) the crop is established under overhead shade. The "Clear Planting" Method has given very satisfactory returns; however, it involves the grower in the financial sacrifice of cutting out bearing trees even though they may be in poor bearing. Although, theoretically, this loss is quickly regained when the higher yields of the new planting are realised, the grower (and particularly the small man) does not have the financial reserves to cover the establishment period. The result is that many growers would not participate in new planting if they were compelled to completely remove all old cocoa. From 1950, planting has been carried out under a system of progressive rehabilitation; in this the grower, in the first phase, plants up all missing areas, and replaces the very poor trees to a stipulated minimum of 35% of the area being rehabilitated. On the result of experience obtained, growers are being advised to make this rehabilitation into patches so that the benefits of clear planting may be realised. Single supplying is not condoned.

The Partial Replanting method has resulted in a considerable acreage of old cocoa being more intensively cultivated. Crop returns are more or less maintained and, with subsequent phases of rehabilitation, large areas will be brought back to an economic position.

The regular use of fertilisers and pesticides are not common practice on Trinidad cocoa. The advent of the 'mist blowing' technique, however, has started many growers on the road to attempt to control insect and disease problems.

The use of fertiliser during the establishment of young cultivation is on the increase. On the general poorly drained soils of the clay type little response (in terms of crop return) has been shown to the use of fertilisers.

Marketing.

Trinidad and Tobago cocoa exports are shown in Appendix I. The acreage in bearing cocoa does not exceed 100,000 (estimated) and the yield per acre is in the region of 200 lbs. dry beans. It is anticipated that there will be a marked increase in cocoa

exports in the next 5-10 years resultant from recent and estimated new plantings; approximately one million young trees will be coming into bearing per annum. At present this increase is barely maintaining the loss from senescence, disease and the cutting out of old trees.

Over the years, good Trinidad cocoa has become valued as a flavour commodity and, as such, realises a premium on the market. This flavour is attributed to the wide range of types, a considerable proportion of which contain criollo blood, present in the territory. The cocoa crop is reaped from November to May, the majority being fermented for 6-8 days, then sun-dried and polished. Unfortunately, the smaller producer does not realise large enough reapings to ensure good fermentation, the product being sold as ordinary cocoa. Three co-operatives of small producers in Tobago have shown (over the last 20 years) that through their venture it is possible for the small grower to obtain a quality product and thus achieve the benefits of a higher price. It is anticipated that in the future co-operative fermentaries will increase.

The export of cocoa is controlled by law, both dealers (middleman) and exporters being licensed. Their profits are limited under this law, Government setting a purchasing price for dry cocoa. This system, known locally as the Cocoa Pool, operates normally for each crop period; all transactions are audited by Government and at the close of the crop or "Pool" period a final price (allowing exporter's expenses and profit) is declared. A second payment or "bonus" is then made on the basis of original sale receipts. This system means that each producer of cocoa receives the same final price for his crop and he is not subject to the vagaries and fluctuations of the world market. Further, speculation on the part of local dealers is avoided. Certain producers are also licensed as exporters; included in this group are the Cocoa Planters Association, a marketing co-operative of large and small producers which accounts for about 20% of the total crop. These private exporters have built up a reputation for producing high quality cocoa and, as such, they obtain in general a price higher than the "Pool".

Approximately 40% of the territory's crop at present achieves a quality premium on the European market, the majority of ordinary cocoa being shipped to North America. This is shown below:-

Exports 1959

Exported to:	Weight	Value (B.W.I.)	Value per lb. (c.i.f.)
	lbs.	$	¢
North America	9,479,685	5,613,414	59
Europe	6,114,915	4,265,021	70
Others	290,800	198,594	68
	15,885,400 lbs.	$10,077,029	63¢

This means that growers would realise approximately 65¢ per pound for cocoa exported to Europe and 54¢ per pound for cocoa exported to North America. In 1959 the Cocoa Planters' Association paid members 67¢ per pound for cocoa sold through their co-operative whilst payments to growers selling through the "Pool" amounted to 52¢ per pound. This price differential in recent years has led to criticisms of the 'Pool' system; its weaknesses are:-

(a) that there is not a large enough price differential for well prepared good quality cocoa;

(b) that exporters do not have the incentive to realise always the best price;

(c) that private exporters can 'dump' their reject cocoa on the 'Pool'.

Government has under consideration legislation to overcome these weaknesses, the aim being to increase the proportion of quality cocoa exported.

Research.

Cocoa research is carried out by three organisations in Trinidad, viz.

1. The Ministry of Agriculture of the Trinidad Government. The main research station is at Centeno (La Reunion), being a part of the Central Agricultural Experimental Station. This station (La Reunion) is administered and financed through the Cocoa Board. The Ministry also operates a smaller station at Marper Farm. Research is centred on the breeding and selection of new varieties, with particular reference to resistance to Witches' Broom disease. Field trials (on the full range of environmental conditions) for the testing of new varieties, the use of fertilisers and the effect of pesticides, are conducted. At La

Reunion trials have been undertaken on cocoa processing with particular reference to artificial drying.

2. The Imperial College of Tropical Agriculture. Cocoa Research is centred in a regional research scheme, which incorporates Cocoa Research Schemes commenced in 1930. Research is primarily fundamental and falls under the heads of Breeding, Physiology and Biochemistry, Soils Chemistry, Pathology and Entomology. Field Research is conducted at River Estate and Las Hermanas Estate, Talparo.

3. The Microbiological Research Institute. Investigations have been carried out into the biochemistry of cocoa processing, in particular fermentation.

The results of research in Trinidad have been applied with great benefit to the Cocoa Industry. The principle achievements are:-

(a) The Evaluation of a method of producing vegetative plant material. The present technique (La Reunion Method) is utilised extensively by the Cocoa Board in producing over one million clonal plants per annum.

(b) The Selection of Clonal Varieties both from the Trinidad population (the ICS series) and from the Upper Amazon (IMC, PAs. etc.). The present distribution mixture of plants under the Cocoa Subsidy Scheme is based on results from field assessment of these varieties. Selections from the Upper Amazon include the SCAs. which are of high resistance to Witches' Broom disease.

(c) The Evaluation of 'Hybrid Seed' resultant from breeding programmes for Witches' Broom resistance. This has provided a seedling material (combining disease resistance, quality and high yield) which appears to give yields comparable to the best clones at present in use. Hybrid seed now forms a part of the distribution mixture under the Cocoa Subsidy Scheme. In addition considerable quantities have been exported to other cocoa growing territories (British Guiana, British Honduras, Jamaica, Grenada, Haiti, Colombia, Nicaragua) in this area.

(d) The Breeding of New Clones resistant to Witches' Broom disease. Some 200 selections are in the process of being 'bulked up', a few have been distributed on a small scale commercially.

It is probable that these clones (and those to follow) will completely replace existing clonal material in a few years. These clones show high resistance to Witches' Broom disease and their importance to the Trinidad industry cannot be over-stressed.

(e) The Artificial drying technique which has been evolved has been adopted on a few of the larger properties. It is anticipated that this technique will form a basis for the increase of small producers' co-operatives in the future.

Diseases and Pests.

Black Pod Disease (causitive agent Phytophthora palmivora) is present throughout the cocoa districts of the territory. Serious losses are caused in the wetter Vega lands where cocoa is commonly overshaded (Erythrina glauca being subject to parasites which greatly increase shade). Considerable relief from the disease may be achieved through field sanitation. Trials on control by spraying have given mixed results; yields have been increased but the incidence of disease not reduced proportionately.

Witches' Broom Disease (causative agent Marasmius perniciosus) first reported in 1928 now present throughout the territory. On the better drained soils of the hills (Northern Range & Tobago) and Central Range the disease is not serious. On the wetter districts considerable losses occur often, being as high as 75% of individual reapings. Field sanitation (removal and destruction of brooms) offers some relief; spraying has not been successful, the main control lying in the realm of resistant varieties. A considerable proportion of areas planted under the Rehabilitation Scheme in latter years has included Amazonian varieties which show a marked tolerance to the disease. Future plantings in districts prone to this disease will be made with highly resistant varieties now becoming available.

The Ceratostomella-Xyleborus complex was first reported in 1958 and is present throughout the cocoa districts; losses, whilst serious, are far from epidemic proportions. Cushion Gall is present and has been observed throughout the cocoa districts; at present this condition does not appear to be of economic importance. Other fungus diseases of minor importance are - Pink Disease (Corticum salmonicolor), Thread Blight (Corticum sp.) and Rosellinia root rot.

Cocoa Virus. In 1943 a virus disease of cocoa was reported in the North Western districts. Surveys have shown that the virus is restricted to the western areas of the Northern Range (Diego Martin, Santa Cruz, Maracas, Aripo valleys) and a small escape at Sangre Grande. The virus appears to be a mild strain; no swelling of shoots occur, symptoms being seen only in the leaves. All plant material from propagating stations is checked for virus symptoms prior to distribution to growers. There is no evidence to indicate that this virus is of economic importance.

Cocoa Thrips (Selenothrips rubrocinctus) is a serious pest; in heavy attacks defoliation results, resulting in premature 'flushing' and consequent loss of young crop. The clone ICS.1 is very susceptible to Thrip attack. Spraying with BHC prior to the main periods of flush (January and June) can effect good control.

Cocoa Beetle (Steirastoma breve) causes considerable damage, in particular to young trees (up to 5 yrs.), the larvae tunnelling at the base of tree causing 'ring barking' and subsequent death of tree. In recent years beetle damage has been severe, in particular as it forms a means of entry of the Ceratostomella-Xyleborus complex. Spraying the lower canopy (where adults feed) and base of tree with lead aresnate gives a good control.

Bachac Ants (Atta spp.) can cause serious losses to young plants; these ants often causing complete defoliation resulting in subsequent death of the plant. Destruction of the nest is the only adequate control and as these ants can travel long distances this is not easy.

Other destruction agents are Rats, Squirrels and Woodpeckers which attack the ripening pod. These become a serious problem on land which has been abandoned.

Future Outlook.

The present estimated producing cocoa acreage is less than 100,000 as compared with a peak of near 250,000 in the 1920s; it is unlikely in the future that the acreage in cocoa will exceed 150,000. Potential production therefore must be based on this figure. Through the rehabilitation measures outlined above, it is estimated that the average yield per acre will be raised to near 600 lbs. which will give a production in the territory of sixty to ninety million pounds per annum.

In the past ten years some seven million (effective) trees have been planted, with an estimated one and a half million being planted per annum; it will take some twenty years to achieve the figure mentioned above.

APPENDIX I - Quantities and Value of Cocoa exported from Trinidad & Tobago 1865-1959

Year	Amount lb.	Value B.W.I.$	Year	Amount lb.	Value B.W.I.$
1865	6,611,160	707,179	1912	41,525,627	4,838,352
1866	5,635,840	793,997	1913	48,116,377	6,736,306
1867	7,641,960	905,342	1914	63,447,876	7,055,486
1868	7,758,048	803,736	1915	54,081,452	8,953,277
1869	6,269,920	633,754	1916	53,692,052	7,858,886
1870	6,862,600	778,315	1917	70,144,898	7,922,611
1871	6,447,380	829,790	1918	58,638,562	7,426,008
1872	7,019,160	929,347	1919	60,743,283	12,444,653
1873	7,695,520	1,021,042	1920	62,741,172	15,485,832
1874	9,396,531	1,022,770	1921	75,238,566	6,536,323
1875	6,272,540	1,112,746	1922	50,645,635	5,741,597
1876	9,477,123	1,093,709	1923	67,692,265	6,175,171
1877	9,726,742	1,324,608	1924	56,402,755	5,595,917
1878	9,911,865	1,459,589	1925	49,476,609	6,034,824
1879	11,641,170	2,038,123	1926	50,067,881	6,097,608
1880	10,999,385	1,451,318	1927	51,934,857	8,025,038
1881	10,809,796	1,279,973	1928	58,008,156	7,925,659
1882	10,972,687	1,520,318	1929	61,888,740	6,941,410
1883	11,649,785	1,788,619	1930	53,825,120	5,453,069
1884	12,908,770	1,828,214	1931	57,186,512	3,937,598
1885	13,729,565	1,852,325	1932	41,822,127	2,780,016
1886	17,913,037	2,502,134	1933	51,311,274	2,668,325
1887	11,927,067	1,701,216	1934	26,803,149	1,678,531
1888	21,352,312	2,937,005	1935	44,387,616	2,530,622
1889	15,335,228	1,973,966	1936	28,339,136	2,340,379
1890	21,552,593	2,548,920	1937	26,258,288	3,086,995
1891	16,188,493	2,110,973	1938	42,436,447	2,369,290
1892	25,041,635	3,110,894	1939	16,753,624	1,212,682
1893	19,106,553	2,568,264	1940	24,858,835	2,289,605
1894	21,608,384	2,447,078	1941	18,787,216	1,753,954
1895	29,458,813	2,979,043	1942	10,107,730	1,188,653
1896	23,481,848	2,170,277	1943	8,009,443	977,218
1897	23,840,665	2,554,190	1944	10,622,633	1,405,853
1898	24,340,960	3,388,589	1945	7,731,824	1,082,914
1899	29,225,504	3,737,659	1946	6,626,962	1,171,781
1900	30,383,808	4,092,326	1947	9,009,443	3,306,240
1901-2	30,154,768	4,067,597	1948	18,265,605	8,356,450
1902-3	37,585,184	4,356,149	1949	12,831,781	4,557,787
1903-4	36,154,048	4,305,758	1950	16,197,928	8,360,678
1904-5	40,753,776	4,260,816	1951	19,316,640	11,563,270
1905-6	48,416,256	4,997,323	1952	14,087,360	8,237,141
1906-7	27,570,928	3,849,950	1953	21,684,496	11,729,114
1907-8	49,730,576	8,574,653	1954	17,640,784	15,047,820
1908-9	49,137,088	5,530,968	1955	16,459,744	11,773,390
1909	51,575,104	5,430,840	1956	21,836,752	10,485,241
1910	57,858,640	5,904,466	1957	15,945,752	8,474,572
1911	49,790,832	5,411,386	1958	18,179,219	12,845,489
			1959	15,885,400	10,077,029

THE COCOA BOARD OF TRINIDAD AND TOBAGO

The Cocoa Subsidy Scheme (Revised Ordinance of Trinidad and Tobago Ch.23 No.16) is administered by a statutory body - The Cocoa Board of Trinidad and Tobago. Members are drawn from the industry and nominated by Government. The present composition of the Board is -

Mr. L.L. de Verteuil, Technical Officer (Research), Agriculture - Chairman
Mr. P.B. Burke, Accountant General - Vice-Chairman
Mr. S. Williams
Mr. D.B. Murray
The Hon. Sir Harold Robinson
Mr. J.A. McDonald
Mr. N.M. Ghany
Mr. E. Taylor
Mr. J.C. Muir, C.M.G., O.B.E.

The staff of the Board consists of a Chief Rehabilitation Officer, with a field staff of 45 and a clerical staff of 44.

OBJECTS.

The Cocoa Subsidy Scheme aims to assist the cocoa industry by providing free planting material (with a cash subsidy) for lands considered suitable to continued cocoa cultivation. Up to 1958 financial aid was granted for the replacement of unsuitable cocoa areas by other crops, including mixed farming. In the period 1952-58 free fertiliser was issued as an additional subsidy for cocoa rehabilitation.

Qualifications.

The only qualification to join the Scheme is that the proprietor owns lands suitable for cocoa (other than cane lands) on which it is desired to rehabilitate. Tenants of crown lands and private lands, providing they hold a minimum lease of 25 years, may also take part in the Scheme.

Finance.

The Cocoa Subsidy Scheme is financed from the following sources:- Special taxation on import duties, sweepstake taxes and stamp duties. In addition there is a cess of 2¢ per pound on all cocoa produced. At present these bring in a revenue of $1.6 million per annum.

Methods of Planting.

Two approved methods of planting are allowed, viz.

(a) Complete Replanting, in which all old cocoa is removed;
(b) Partial Replanting (35% or more) of the existing cocoa field. This method is intended to be progressive and allows for subsequent phases of rehabilitation.

With both methods it is necessary that overhead shade be planted.

The Board receives request annually from cocoa growers for the amount of plant material required in the subsequent year. A pro rata allocation of plants is then made. Lands are inspected by the Board's field staff prior to the issue of plants. Payment of subsidy is effected after planting and an inspection of the area by the field staff is carried out.

Plant Production.

The Board operates 3 Central Propagating Stations in Trinidad and 1 in Tobago. In addition, there are 15 Assisted Estate Propagators in Trinidad and 3 in Tobago. In 1959 plant production from these stations was 1,344,612, of which 23% were Hybrid Seedlings.

Benefits Available.

The assistance takes the form of -

(1) Provision of free plant material of clonal cocoa and/or hybrid seedlings delivered to the grower.
(2) Cash subsidy for the Complete Replanting of 10% of the cocoa acreage at the rate of $300.00 for each acre of new cocoa planted.
(3) Cash subsidy at the rate of 30¢ per plant planted for all Complete Replanting in addition to (2) above and for all cocoa planted by the Partial Replanting method.

This brochure has been prepared by Mr. E.R. Moll, Chief Rehabilitation Officer of the Cocoa Board of Trinidad & Tobago for delegates attending the Eighth Inter-American Cacao Conference in Trinidad & Tobago - June 15th-25th, 1960.

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